AMERICAN ANNALS OF THE DEAF

FOUNDED 1847

Official Organ

Conference of Executives of American Schools for the Deaf

FOUNDED 1868

Convention of American Instructors of the Deaf

FOUNDED 1850

POWRIE VAUX DOCTOR, Ph.D.
Editor

Under the Direction of the Executive Committee of the Conference

MARSHALL S. HESTER	New Mexico, 1960
Chairman	
ROY M STELLE	Colorado, 1958
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SEPTEMBER, 1958

Volume 103 **Number 4**

THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF

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THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF, originally the Conference of Superintendents and Principals of American Schools for the Deaf, was founded ... subsequently incorporated under the laws of the State of ... 28. The Conference is an organization of the executive heads ... for the deaf in the United States and Canada, for the ... promote the management and operation of schools ... broadest and most effective lines and to further and promote the general welfare of the deaf."

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The American Annals of the Deaf

The AMERICAN ANNALS OF THE DEAF was founded in 1847 at the American School for the Deaf in Hartford, Connecticut, by the members of the faculty of that school, which is the first free public school for the deaf in America. Although the journal received the approval of the administrative school authorities, the periodical was first entirely sponsored by the members of the faculty. After two years the ANNALS was discontinued for some months but was revived by the members of the Convention of American Instructors of the Deaf in their first meeting in New York, N. Y., in 1850.

In June, 1861, the publication ceased because of the War Between the States, inasmuch as the membership of the Convention was made up of northerners and southerners in almost equal proportion. In September, 1868, the AMERICAN ANNALS OF THE DEAF resumed publication with the editorial offices on Kendall Green, in Washington D. C., where it has since remained.

The AMERICAN ANNALS OF THE DEAF is the official organ of the Conference of Executives of American Schools for the Deaf, which was organized in 1868, and of the Convention of American Instructors of the Deaf, founded in 1850. According to the Library of Congress it is the oldest educational publication in the United States still in existence. It is also the oldest journal on the education of the deaf in the world.

The ANNALS is published five times a year, being issued in September, November, January, March, and May. The subscription price is $4.00 a year, payable in advance. If five or more copies of the ANNALS are sent to one address, the subscription price is $3.50 a year. Single numbers sell for seventy-five cents, except for the January number which sells for $2.00. Back issues are available for 1847, 1848, 1849, 1857, and from September, 1868, to the present. Indexes for 1847–1875, 1876–1885, 1886–1895, 1896–1905, are available at $2.00 each. Indexes for 1906–1915, 1916–1925, 1926–1935, 1936–1945, 1946–1955, were issued as regular numbers of the ANNALS and may be purchased for $2.00 each. All back issues prior to 1940 sell for $1.00 each. All requests for subscriptions or for back numbers should be addressed to Editor, AMERICAN ANNALS OF THE DEAF, Gallaudet College, Washington 2 D. C.

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The Deaf Child with Other Handicaps[1] [2]

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Knowledge of individual differences of children continues to grow. Along with this knowledge we find improved techniques for diagnosis and evaluation of learning and behavior. However, in a sense, instead of finding answers and solutions to the complex problems of the human being, we simply redefine and further segmentize these problems. This in itself might be an important aspect of the process we refer to as progress. In any event, it is of considerable importance that we are concerned here with the deaf child having other handicaps. Education of the deaf in this country began only a little more than a century ago. During this period we have pioneered in higher education for the deaf, in vocational guidance and training, in the use of amplification and auditory training, and in other ways. With this heritage it is not surprising or peculiar that we are now deeply concerned about that portion of the population of deaf children who present unusual problems of learning and adjustment. Furthermore, we are aware that these problems are difficult and complex. Anyone, educator, parent or scientist, who has come into close contact with the education of children having profound deafness from early life, knows that this is one of the most difficult educational problems known. To oversimplify this problem for any such child is an unfortunate error. We must expect that meeting the needs of the deaf child having other handicaps will present even greater challenges.

How shall we approach this problem? First, we must recognize it as a problem of many facets. Usually after the child reaches school age the educator has the primary responsibility for providing the necessary program. However, others who must be involved and who must accept considerable responsibility are the psychologist, audiologist, psychiatrist, otolaryngologist, pediatrician and rehabilitation worker. Close cooperative effort in providing services is essential in order to meet the needs of children who present such complex problems.

[1] This study was made possible by a grant from Iota Nu Chapter, Delta Theta Tau Sorority.

[2] This paper was delivered to the meeting of the Conference of Executives, American Schools for the Deaf, Knoxville, Tennessee, June, 1957.

[3] Indebtedness for invaluable assistance is expressed to Dr. Frances Mullen, Assistant Superintendent of Schools in charge of Special Education, Dr. Margaret Hall Powers, Director, Bureau for Physically Handicapped, and to Mrs. Margaret Gunther, of the Chicago Public Schools.

The Other Handicaps

What other handicaps are encountered? On the basis of experience with many types of children having multiple involvements we can arrive at some definition or classification of those having handicaps in addition to deafness. Without actual statistics it is not possible to do this in order of frequency but an attempt will be made to give an order of urgency. The following then is a listing of the multiple handicapped child with deafness on the basis of experience in clinics and schools.

I. *The brain damaged child with specialized language disorders.*

This group includes those with

(a) Asphasic involvement affecting speech—a symbolic disorder which may affect either the visual or auditory aspects of speech, so that he cannot imitate the speech he sees or repeat the speech he hears through amplification.
(b) Aphasic involvement affecting speechreading—a symbolic disorder causing an inability to associate words (symbols) with lip movements.
(c) Dyslexia—a symbolic disorder causing an inability to associate a specific experience (meaning) with the written word.
(d) Dysgraphia—a symbolic disorder causing an inability to associate a word (idea) with the motor act of writing.
(e) Dyscalculia—a symbolic disorder causing an inability to associate specific experience (meaning) with numbers.
(f) Auditory agnosia—a generalized disorder causing an inability to associate meaning with any sound.

It must be emphasized that the brain damaged child with specialized language disorders is not seriously mentally retarded. Furthermore, these children frequently can be helped considerably by using special remedial techniques which have been developed for hearing children having language disorders. The incidence of deaf children having specialized language disorders is not known. On the basis of workshop and clinic experience with children presenting problems of marked school failure, the incidence is much higher than assumed.

II. *The educable mentally handicapped.*

This group includes those with generalized mental retardation. Definition and diagnosis of this type of child has become less difficult through research and experience. Frisina (8) in a dissertation study found that about 12% of the children in residential schools had intelligence quotients below 79. The lowest mental level was manifested by an intelligence quotient of about 60. On the basis of experience in trying mentally retarded children in schools for the deaf, both day and residential, we have learned that it is rarely possible to classify such a child in these schools unless his intelligence level falls above 65; about two-thirds of normal or higher. This suggests that

the educable mentally retarded fall between the mental levels of 65 and 85. However, educability is never only a function of intelligence. Other significant factors are emotional adjustment, degree of deafness, and presence of other involvements such as cerebral palsy and specialized language disorders. The educable mentally handicapped child usually benefits most from special class placement and emphasis on concreteness rather than mainly academic success.

III. *The emotionally disturbed.*

This group includes those who require special assistance because of problems in emotional adjustment. Diagnosis of emotional disturbance in deaf children continues to be difficult. Most personality tests assume verbal facility and, therefore, are not directly applicable, especially to the young deaf child. Progress is being made in the use of non-verbal personality assessment techniques. This is manifested in recent studies by Fiedler (7) and Bindon (3) who used the World Test and the Maps Test, respectively. That emotional disturbance presents a serious problem in deaf children is attested to by all who have clinical experience in this area. Various types of emotional disturbances are encountered. The more predominant can be listed as follows:

(a) Marked withdrawal and bizarre behavior; this may be a true psychosis. The child lives essentially in a world of his own. He is unable to relate to others and cannot establish and maintain friendships. He might engage in unprovoked laughter, crying or screaming. Study to date suggests that deafness causes severe isolation psychologically and might activate any withdrawal tendencies of the personality. Studies of the nature and incidence of this type of emotional disturbance in children are in progress.

(b) Severe anxiety and compulsiveness. These emotional disturbances usually are of the neurosis type rather than psychosis. The child manifests many unrealistic fears; one child had extreme anxiety regarding storms. Even a rain shower would cause her to be unable to eat, to go to bed and to cry in a fit of fear. Other children have extreme meticulosity. Everything must be in the exact order that they chose. They line up their blocks, toys, books, pencils, or clothing in a certain order, and if this order is disturbed they show great emotional upheaval and distress. Such compulsiveness can be manifested in many other ways; one child required the same foods on the same day of every week; disturbance of the routine brought about uncontrolable emotional outbursts. Some children become compulsive regarding cleanliness. This is particularly common in young deaf children. One child having this difficulty demanded a change of clothing

if he spilled a few particles of food on himself while eating. Children presenting problems of this nature are in need of psychotherapeutic assistance.

(c) Aggression, lack of respect for authority, diminished feelings of remorse. Some children are unduly aggressive, fighting or provoking others. They manifest marked feelings of hostility, with an attitude of wanting to fight back at the world. Extreme teasing is common; by teasing they provoke others to attack them and thus justify their own aggressive needs. Psychological study suggests that it is more difficult to learn the limits and restrictions of society when deafness exists from early life. The processes of internalization of parental controls, identification with the peer group, and development in general are impeded without normal auditory contact with the environment. Under certain circumstances some deaf children apparently do not achieve normal feelings of respect for society's lines and cultural mores. Likewise, conscience development, which is so markedly dependent on internalization of parental authority, might be disturbed. Such children show diminished feelings of remorse. As a teacher of the deaf wrote regarding a boy whom she referred for study, "he is overly aggressive, picks on smaller children and never seems to realize that he is at fault." This boy was found to have a serious personality disorder of the type discussed in this category.

Many other types of emotional problems are encountered. Those with generalized immaturity, deficiency of self concept, diminished feelings of self esteem and self respect, those who are insecure, lacking normal feelings of confidence and spontaneity. Such children, unlike those who are emotionally disturbed or mentally ill, are not in need of psychotherapeutic management, but do need active, well planned programs of mental hygiene. Certainly in this area of emotional disturbance, as in so many other areas, an ounce of prevention is worth a pound of cure. Those of us who are called upon to assist with the examination and classification of the mentally ill adult deaf feel that the importance of programs directed at the problem of emotional adjustment, through the school for the deaf, cannot be overemphasized.

IV. *The group with motor disorders.*

This group includes those who have crippling conditions which seriously restrict ambulation and self care. Such children may require wheel chairs, special transportation facilities, assistance with feeding, dressing and other aspects of self-help.

Schools for the deaf routinely do not provide the services required for these children. Hence in a number of communities they are classified in the schools for crippled children. This has presented problems because of the differing degrees of deafness and differences in age; as a result these classes sometimes have real

limitations in terms of the child's educational experience. How the schools for the deaf, day and residential, will define their programs and objectives in the future, remains to be seen. It is obvious, however, that the problem of the deaf child with other handicaps must be reconsidered. There is reason to believe that the school for the deaf of the future will define its role much more broadly; that it will provide specialized programs and services for all educable children with profound hearing losses, irrespective of other involvements. This possibility is suggested further under implications below.

V. *Those with seriously impaired vision.*

This includes those who are both deaf and blind and the partially sighted. Diagnosis and classification of the deaf-blind as to educational potential is a difficult and complex task. Through the cooperation of various specialists, some progress has been made. Whether these children can be benefited most in a school for the deaf or in a school for the blind is essentially a function of the suitability of the facilities and the availability of a well trained staff.

Studies of vision, although few and lacking in definitiveness, suggest that deaf children as a group have a high incidence of visual defects (17) (23). Children having deafness as a result of maternal rubella often have concomitant visual impairment. Usually partial sightedness is defined as visual acuity of 20/70 or less; 20/200 or less usually is used as the definition of legal blindness. The incidence of deaf children having impaired vision to the extent of needing programs of the type provided for the partially sighted is not known. However, in this area, too, it is apparent that there is a real need for visual screening and for specific program planning. Visual screening procedures are available. The use of such tests is indicated further below.

VI. *Those having conditions not included in the classifications given above.*

Other children who must be considered are those with cardiac disease, epilepsy, and various other conditions affecting health and general well-being.

It is interesting that as medicine and other sciences advance, more children with serious multiple handicaps seem to survive. This does not mean, necessarily, that the total population of deaf children is increasing; modern medical treatment prevents deafness in a significant number of children. However, it might mean that those surviving despite multiple involvements are increasing. In favor of this assumption is the significant number of RHs, rubellas, meningitics and prematures who now survive, but often only after marked handicaps, including deafness, have been sustained. Any study of deaf children having other handicaps includes a high incidence of children who have deafness as a result of these diseases.

A study of children presenting unusual school learning and adjustment problems in a school for the deaf

With these various classifications in mind, a pilot study was made of a small group of children presenting unusual school learning and adjustment difficulties. The principal and teachers in a day school for the deaf were asked to select those children who were unusually difficult to teach and who were significantly deficient in their academic achievement as compared to other deaf children. These educators had had many years of experience. The total population of deaf children in this school was 63; 35 were boys and 28 girls. As shown in Table One, 21 children were referred. Of

TABLE 1

Etiology, age of onset, hearing and vision data for children presenting unusual school learning and adjustment problems in a school for the deaf.

Case #	C. A.	Etiology	Age of Onset	Hearing BEA	Visual Function
1	8–2	Undetermined	Undetermined	65	2,4
2	8–9	Meningitis	5 years	85	2,5,6
3	9–8	Meningitis	17 months	53	1
4	9–10	Undetermined	Undetermined	75	2,5
5	9–10	Undetermined	Undetermined	92	2,4,5
6	10–5	Meningitis	3 years	92	1
7	11–9	Undetermined	Undetermined	8	5
8	12–1	Premature	Birth	52	2,5
9	12–9	Undetermined	Undetermined	57	5
10	13–8	RH	Birth	72	6
11	13–11	Meningitis	2½ years	99	1
12	14–1	Meningitis	1½ years	98	1
13	14–3	Undetermined	Undetermined	52	1
14	14–9	Undetermined	Undetermined	88	1
15	14–10	Rubella	Birth	55	3,5
16	15–0	Seizures	2 years	2	1
17	15–1	Undetermined	Undetermined	70	1
18	15–5	Rubella	Birth	65	5
19	15–5	Rubella	Birth	71	5
20	15–7	Undetermined	5 months	65	1
21	15–8	Seizures	1 year	85	1
Mean:	12–11		Mean:	66.71	
S.D.:	2–6		S.D.:	25.54	

1 = Acuity Normal 3 = Color Blind 5 = Stereopsis Defect
2 = Acuity Defective 4 = Perceptually Disturbed 6 = Fusion Defect

these, 4 were girls (cases No. 1, 5, 9 and 11) and 17 were boys. On the basis of the ratio of boys to girls in this particular school, this means that 49% of the boys and 14% of the girls presented special problems as here defined and as identified by the teachers. The total sample of 21 children represented about 31% of the deaf children in this school. This high incidence of referable children reflects a selected sample inasmuch as they had been concentrated in this school for reasons of program planning.

The age range was from 8 years and 2 months to 15 years and 8 months, with a mean age of 12 years and 11 months. Five had

deafness as a result of meningitis (slightly less than 24% of the sample), 3 were rubella children (slightly more than 14% of the sample), one had prematurity given as the cause of deafness, two had histories of seizures and this was given as the etiology and one was an RH child. No causation was determined for the remaining nine. For those for whom the age of onset had been determined, the range was from birth to five years. The degree of deafness on the basis of the better ear average ranged from a loss of less than 10 decibels for two children to what approximated a total loss for speech. Case No. 7 had only an 8 db loss on the right ear but he had a loss of 57 db on the left. Case No. 16 had no loss of hearing on either ear; his problem is discussed further below.

The Keystone Visual Survey Tests and telebinocular were used in screening visual efficiency; the non-language charts and method of response were used.* These results also are presented in Table I. Ten out of the sample of 21 had normal vision as indicated by this battery of tests. The remaining 11 had various types of visual problems, in some instances showing considerable disturbance or deficiency in visual function. A striking finding is that 9 children had little or no stereoscopic vision (depth perception). The classification of perceptually disturbed results from a qualitative analysis of the responses; this analysis was given statistical support in a study by Wood (24). Two children showed marked perceptual disturbance, 5 had significant acuity defects, 1 a fusion defect and 1 was color blind. In general about one-half of the children had disturbances of visual efficiency which might be of significance in their school learning and adjustment problems.

To pursue further evaluation of this group, laterality, strength of grip and locomotor coordination tests were used. Such tests have proved useful in indicating the type, or types, of conditions which might be present. Motor tests have shown differences between deaf, aphasic and emotionally disturbed children; between children deaf from meningitis and those deaf from other causations. Furthermore, there is an indication that deaf children as a group are inferior to hearing children on certain types of motor activities. Smedley (21), Jones (14) and Meredith (16) have studied the significance of strength of grip as a developmental phenomenon in normal children. Heath (12) has shown that locomotor coordination is a function of maturation and that tests of this ability differentiate between exogenous and endogenous mental defectives. With this as a frame of reference motor tests were included with the presumption that relevant data would be secured regarding the total problem presented by each child. The motor test results might indicate whether a child's problem was essentially peripheral (end-organ), or whether it was mainly a central nervous system involvement, i.e., neurological in nature. Kicking and throwing tests selected from the battery by Harris (11) were used for laterality testing. The Smedley (21) dynamometer was used to measure strength of grip; measurements are given in kilograms. The Heath Railwalking Test was used to measure locomotor coordination.

* Available from Keystone View Company, Meadville, Pa.

The results obtained from the motor test battery are shown in Table 2. Thirteen, (62%) showed right hand and leg dominance on the laterality tests; six (29%) showed mixed dominance, i.e., right hand and left leg, or vice versa, and two were predominantly left for both hand and leg. The high incidence of mixed dominance indicates that this sample is made up of a disproportionately large number of individuals with central nervous system involvements.

The dynamometric test results show maturational progression. The mean is given for the boys only; the girls (cases 1, 5, 9 and 11) were eliminated from this calculation because of the sex difference existing on all motor tests of this type. Jones' (14) norms do not go below eleven years but these norms were used in the interpretation whenever possible. The two girls above eleven years of age (No. 9 and 11) compare favorably with hearing children in strength of grip; case 9 falls at the mean and case 11 slightly above the mean for both hands. Of the boys above 11 years of age only No. 10 and 19 show inferiority. Case 10 could be tested on one hand only because of injury on the left and case 19 was an undervitalized child because of a cardiac involvement. The mean C.A. for the

TABLE 2

Lateral dominance, dynamometric and locomotor coordination data for children presenting unusual learning and adjustment problems in a school for the deaf.

Case #	C. A.	Laterality		Dynamometer		Locomotor Coordination Age
		Hand	Leg	Right	Left	
1	8–2	R	L	15	13	6–
2	8–9	L	R	13	16	6–
3	9–8	R	R	16	12	9
4	9–10	R	R	10	11	6–
5	9–10	R	R	14	14	6–
6	10–5	R	R	16	18	6–
7	11–9	R	R	23	20	9.5
8	12–1	L	L	24	24	6–
9	12–9	R	R	25	23	9.5
10	13–8	L	R	NA	18	6–
11	13–11	R	R	31	31	9
12	14–1	R	R&L	36	42	6–
13	14–3	R	R	42	40	12
14	14–9	R	R	55	50	11
15	14–10	R	R	33	29	15+
16	15–0	R	R	41	39	15+
17	15–1	R	L	40	37	11.5
18	15–5	R	R	54	47	9
19	15–5	L	L	26	28	NA
20	15–7	R	R&L	51	44	12
21	15–8	R	R	44	38	6–
			Mean for boys	32.75	29.12	
			S.D.	14.85	12.53	
			Boys C.A.	13.4		
			S.D.	2–4		

R = Right
L = Left
NA = Not administered
6– = below 6 yrs.
15+ = above 15 yrs.

boys was 13 years and 4 months and the mean dynamometric scores for the right and left hands were 32.75 and 29.12. These scores fall almost exactly on the means for right and left for hearing boys with a C.A. of 13.5. These results suggest that this sample was not inferior in strength of grip.

The norms for public school children derived by Heath (18) were used in the interpretation of the locomotor test results. As expected from other research (19) (20) this sample showed marked inferiority on this type of motor task. The test consists of walking rails heel to toe and children deaf from meningitis have been found to

TABLE 3

Mental test data for children presenting unusual school learning and adjustment problems in a school for the deaf.

Case #	C. A.	Hiskey Blocks	Draw-A-Man	Porteus Maze	Healy I	Chicago Non-Verbal	Digits F	Digits B
1	8–2	5–6	8–6	7–6	7–0	5–7	2	2
2	8–9	9–0	9–6	8–6	9–0	7–9	3	3
3	9–8	11–0	7–3	15–0	10–8	11–4	5	3
4	9–10	7–0	10–3	8–6	7–0	8–4	2	2
5	9–10	5–6	7–9	6–6	10–6	8–7	4	2
6	10–5	11–0	9–0	11–6	11–2	8–9	2	2
7	11–9	9–0	8–9	8–6	15–6	9–6	2	3
8	12–1	8–0	8–9	10–6	8–2	10–10	2	2
9	12–9	5–6	8–0	14–6	10–3	11–7	3	3
10	13–8	9–0	8–3	14–6	15–6	10–3	2	2
11	13–11	11–0	11–6	15–6	15–6	15–9	4	4
12	14–1	9–0	10–0	14–6	12–6	9–7	2	2
13	14–3	8–0	10–3	14–6	15–6	14–8	5	4
14	14–9	11–0	13–9	15–0	10–6	15–11	4	4
15	14–10	9–0	12–6	14–6	10–6	15–2	5	4
16	15–0	11–0	NS	14–6	10–3	12–11	6	3
17	15–1	5–6	11–3	10–0	9–0	10–9	3	2
18	15–5	8–0	10–0	15–0	10–6	10–5	3	2
19	15–5	8–0	10–6	9–6	15–6	8–4	4	3
20	15–7	9–0	11–9	11–6	9–0	10–10	3	3
21	15–8	9–0	8–9	15–0	7–0	8–4	4	4
Mean:	12–11	8–6	9–10	12–2	10–11	10–9	3.33	2.81
S.D.:	2–6	1–11	1–8	3–1	2–11	2–10	1.24	.81

NS = Not scorable F = Forward B = Backward

be especially deficient in this ability. Cases No. 2, 3, 6, 11 and 12 were meningitics and with the exception of No. 3, all are markedly inferior in this type of motor performance. Only three subjects (No. 3, 15 and 16) fell within one year of the mean for hearing children.

The mental test results are presented in Table 3. With the exception of the Chicago Non-Verbal, only selected items from performance tests and the Draw-a-Man Test were used. It was not the intent of this part of the investigation to indicate further the general intelligence level of these children. This had been done previously by psychologists in the school system. Rather, these mental tests were used in an attempt to ascertain whether children of this type might not have considerable mental ability of a type

despite their striking generalized school failure. Without going into a detailed theoretical discussion, which space does not permit, the four performance test items were viewed essentially as follows:

Hiskey Blocks: (13) This test has been standardized on deaf children. We have used it clinically with several hundreds of children having deafness, aphasia, etc. It has proved of value in determination of visual perceptual disturbances and abstract ability. The subject cannot score if his thinking processes are limited to the "here and now". All aspects of the task are not observable; he must visualize that some blocks are not actually seen but only indicated on the design.

Draw-a-Man: (10) This test has voluminous literature and is useful to the psychologist in various ways. We have well defined information on it for over 800 children in schools for the deaf throughout the U. S.* This test apparently involves significant aspects of both perceptual and conceptual functioning. It was used here as a measure of visuo-motor integration and functional mental level.

Porteus Maze: (1) This test was included because all aspects of the task are present, i.e., in the "here and now". The task is to seek out a pathway, no deductive principles are necessary, the total problem and its solution are immediately observable.

Healy I: (1) This test has been used in many test batteries. It was included because the task involved can be viewed as falling between the Hiskey Blocks and Draw-a-Man and the Maze Test. While all aspects of the problem are observable, conceptualization is required for its solution. For example, the picture of one boy kicking a football to another must be abstracted before the proper missing part can be found, although all parts of the problem are continuously present.

Chicago Non-Verbal: (5) This test has been standardized on deaf children. It has a wide variety of problems including those of the "matching" type (concrete) and the picture arrangement, which are tasks of conceptualization (abstract). Analysis of sub-test performance often has been highly revealing; the block counting test is an exceptionally useful one of this type and correlates highly with other such tests. In this study the results from this test might be considered as a measure of general mental level.

From Table 3 it is apparent that this sample scored highest on tests which can be defined as consisting of problems of the "here and now" type. Specifically, the order from lowest to highest scores was: Hiskey Blocks, 8–6; Draw-a-Man, 9–10; Healy I, 10–11; Porteus Mazes, 12–2. The score on the Chicago was 10–9. To the extent that this pilot study can be considered indicative we can conclude that children presenting unusual school learning and adjustment problems, as a group, are not significantly deficient on

* In preparation for publication in the *American Annals of the Deaf.*

measures of concrete intelligence, but fall considerably below average on measures which entail deduction and abstraction. There are individual subjects who do not conform to this pattern. This is to be expected because of many other factors which can be assumed to be operating in an individual case.

Investigators studying the problem of the psychology of deafness cannot avoid being impressed clinically by strikingly different memory behavior which occurs in deaf children. This is an intriguing problem from the point of view of dynamic psychology and from the frame of reference of neuropsychology. In this connection it is interesting that aphasic and dyslexic children also typically manifest significant inferiority on certain tests of memory; it is of interest also, that one of the most obvious psychological manifestations of the aging process is deterioration of memory. Blair (4) most recently has studied the visual memory of deaf children and found them to be highly inferior on digit memory but superior on memory for designs. The digit symbol test used by Blair was administered to the present sample and the mean scores fall at the 10 year level as derived from his study. Visual memory for digits, especially when one digit is presented at a time, correlates highly with academic (language) achievement in deaf children, presumably because both entail a verbal symbolic type of behavior. On the basis of the study by Costello (6) it is unlikely that the present sample is significantly inferior to deaf children of a comparable age because it seems that only a small segment of the population deaf from early life achieve a memory span of more than four to five digits, irrespective of chronological age level. The means for the present sample were 3.33 forward and 2.81 backwards. Studies suggest that, in contrast to hearing children, there is little difference in the forward and backward memory spans of deaf children.

Language achievement was measured both receptively and expressively. The Columbia Vocabulary Test (9) was used as a measure of read language. The word section of a speechreading test devised by Costello (6) was used to measure speechreading ability. Only written language was appraised to secure an estimate of expressive ability. For this purpose a Picture Story Test which was devised for use in an extensive study of language disorders in children* was used as the stimulus. The child looks at a picture and is instructed to write a story about it. A rather complex scoring technique has been devised for this test; it will not be discussed here.

The most outstanding result from this language appraisal is that the mean for speechreading is essentially identical to that secured by Costello (6). (The mean C.A. for her group was exactly 12 months lower than that for the present sample.) This suggests that the group of children in this study are not significantly different from other deaf children in speechreading. However, wide individual differences occur; cases 1, 2, 4, 6, 7, and 12 are especially deficient in speechreading ability. With the possible exception of case 20, these low scores fall at the lower age range.

* To be published.

The total sample as can be seen in Table Four is essentially devoid of reading ability as measured by the Columbia Vocabulary Test; the mean raw score places them at the 1st percentile for 13 year olds. Likewise, they are seriously limited in written language as measured by the Picture Story Test; in an extensive study of deaf children using this test, the mean for 13 year olds was 12.0. This is in comparison to a mean of 2.79 for this sample. These findings support the teacher reports and referrals; the teachers commented that as a group these children had achieved a measure of speechreading ability but were seriously deficient in other as-

TABLE 4

Language achievement data for children presenting unusual school learning and adjustment problems in a school for the deaf.

Case #	C. A.	*Receptive Language* Reading Vocabulary	Speech-reading	*Expressive Language* Picture Story
1	8–2	0	6	0
2	8–9	0	2	NS
3	9–8	5.00	21	7
4	9–10	.50	3	0
5	9–10	0	26	4
6	10–5	2.00	2	3
7	11–9	0	9	1
8	12–1	0	22	0
9	12–9	4.00	34	0
10	13–8	1.50	17	4
11	13–11	0	28	7
12	14–1	1.25	9	3
13	14–3	0	29	5
14	14–9	8.00	30	4
15	14–10	0	32	5
16	15–0	1.50	15	2
17	15–1	0	24	3
18	15–5	.75	20	1
19	15–5	7.50	30	1
20	15–7	3.50	11	3
21	15–8	23.00	38	NS
Mean:	12–11	2.78*	19.43	2.79
S.D.:	2–6	5.25	11.29	2.25

NS Not Scorable *1st percentile

pects of language development. These findings suggest further that these children have superimposed deficits as compared to other children as far as language learning and acquisition are concerned. On the basis of the total findings it is poss ble that several in this sample are examples of Group I, brain damaged children with specialized language disorders, as discussed above. It is interesting in this connection that case 16, who has normal hearing, was found to be a case of auditory agnosia; he has normal hearing but no sound has meaning for him.

Other tests used in this study included the Bender Gestalt (2), the Maps (22), and several projective types of drawing tests. These results are too extensive to be included here. The Bender

indicated marked visuo-motor perceptual disturbances in the group. The Maps findings suggested that several children had personality disorders; two had what seemed to be real mental illness trends.

Implications for Programs

(1) There is increasing evidence that there is an urgent need for specialized programs in schools for the deaf for children who have other handicaps.

(2) The brain damaged deaf child with characteristic language and learning disorders, but who is not seriously mentally retarded, is in need of a special class program designed specifically for his needs.

(3) It is apparent that schools for the deaf could make an invaluable contribution by establishing centers for psychological and psychiatric services.

(4) There is a suggestion from research study that no methods known at this time are successful in bringing about language acquisition in some deaf children. This group is increasingly identifiable and further study of their problems presents an urgent challenge. In the meantime, to conclude that they cannot be taught to perform many of the concrete skills and tasks required in daily life would be premature and perhaps erroneous. This implies that it is unwise to judge the child's success, and his potential for adjustment in society, only on the basis of his ability to acquire communication skills.

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A System of Sentence Structure for the Development of Language for the Deaf

ELIZABETH SCOTT THOMAS, B.A.
Supervisor, Auditory Training, Ohio School for the Deaf, Columbus, Ohio

At the Ohio School for the Deaf we are developing a system of language that is helping our deaf children in the comprehension and use of correct sentence structure.

Eight different types of sentence patterns were selected from reading and language texts. These sentence patterns are those which children on the primary and intermediate levels would meet frequently in their reading, and which could be used by them to relate their experiences and express their needs. These eight patterns incorporate the basic principles of the English language.

Except for a few deviations, it is believed these eight types of sentences are all that our young deaf children need in order to understand and express meaningful concepts. We think these deviations can be explained as the children grow in understanding. We would rather explain these infrequent deviations than have a system which is too complicated, incorporating, as it may, every possible grammatical construction. Children who become involved in the mechanics of these constructions often fail to use them in their original language.

We are striving for a system of language that will contribute to fluency in lipreading, speech, reading and self-expression. Therefore, our interest is in idea concepts rather than all the nuances of grammar taught too early to the small deaf child.

It is thought that our deaf children will more easily understand English grammar after they have used these simple sentence patterns. Grammar, of course, may be introduced at any time to meet specific needs.

VOCABULARY

Development of simple sentence structure necessitates classification of vocabulary and its place in basic sentence patterns.

The symbols used to classify the vocabulary are:

1. ——— noun
2. ⌐¬ predicate adjective
3. ═══ verb
4. ⌣ adverb and phrases
5. ═══→ infinitive
6. ═══· participle and gerund
7. ←——→ clause connective
8. —┼— time

No symbol is given for the predicate pronoun. The noun symbol is used for it. The noun symbol stands for a person or thing, noun or pronoun.

As our vocabulary is presented it is classified under its proper symbol.

The teacher places the new vocabulary on the blackboard, in a notebook or in a Plymouth chart.

Classification should be broad. Much of our vocabulary is classified in phrases.

Prepositions should not be taught singly but in context.

Ex:

Where

on the table

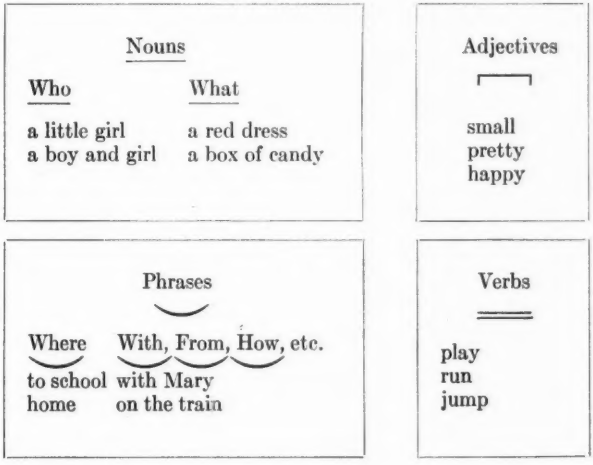
Nouns and their modifiers should be classified under a single heading.

Ex:

Who	What
a little girl	a red dress

It is thought that this procedure helps a deaf child's word order in a sentence. It helps him understand that in his communication with others that a phrase may convey a more meaningful concept than a single word.

Vocabulary Charts



Our teachers make language charts which are built up as material is presented. These charts are kept consistent throughout all grades.

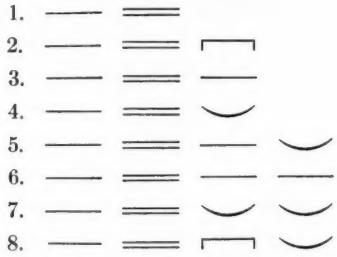
As the child's vocabulary increases, he learns multiple meanings of words and the parts of speech they represent.

Sentence Patterns

Our language system uses eight simple sentence patterns which are introduced as soon as the occasion arises for the children to express their needs and experiences.

A language system such as this has two objectives: (1) To introduce a new language principle. (2) To help a child correct his mistakes. Marking of sentences is confined to these objectives. Many examples are given the children for each sentence pattern.

Sentence Patterns



Examples for these eight types of sentences are:

1. John fell.
2. Mary is fat.

   My dress is pink and blue.
3. I have a ball.

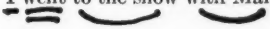
   He is a good boy.
4. He went to the show.

   The book is on the table.
5. Tom put his paper in his desk.

   Mother gave a ball to the baby.
6. Mother gave the baby a ball.

   Tom gave me ten cents.

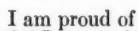
7. I went to the show with Mary.



I went home on the bus.

8. I am afraid of snakes.

I am proud of you.

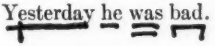


Since a time word may be used at the beginning or end of a sentence, it is not included in the sentence forms. We add it accordingly and use the symbol, +

Ex:

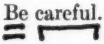
He is a good boy today.

Yesterday he was bad.

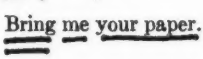


Imperative sentences follow the same eight sentence patterns as declarative sentences. We just leave off the subject.

Be careful.



Bring me your paper.



Pronouns

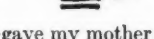
Children have difficulty in proper use of the nominative, objective and possessive case of pronouns. We teach them that the nominative pronouns come before the verb, the objective anyplace after the verb, and the possessive used with a noun. The possessive may come before or after the verb.

Ex:

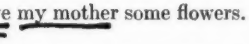
I have a ball.

Mother gave me a ball.

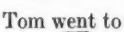
I gave my mother some flowers.



Tom went to the show with me.



My mother is sick.



A simple chart is made to illustrate this use.

Pronouns

Before the verb	After the Verb	With a noun
I	me	my
You	you	your
he	him	his
she	her	her
it	it	its
we	us	our
you	you	your
they	them	their

Order of Modifying Adjectives

The general rule for the order of adjectives in an English sentence is: possessive noun or pronoun, number, descriptive adjective, color, classifying adjective. One adjective, several or all of the above may be used before a noun.

A chart may be made as follows:

Order of modifying adjectives

Whose	How many	What kind	What color	What classification	Who What Whom
my	three	little	black	baby	kittens

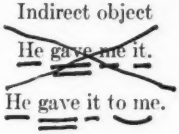
My three little black baby kittens are in the barn.

I have a pretty blue dress.

Indirect Object

Children use the sentence patterns Mary gave me a book or Mary gave a book to me, for the indirect object. These two patterns are interchangeable except when the direct object is a pronoun. The direct object then must be a phrase.

We make a chart to illustrate this point.



Verbs

It is suggested that verbs be listed without the infinitive sign as "play" instead of "to play". The infinitive should be kept out of sight until the children are ready to use it. We do not use the infinitive form as a heading for elliptical statements. The child by using "play" instead of "to play" is prepared to find verbs in the dictionary.

Rather than teach conjugations, the children learn the principal parts of verbs and learn the forms that are used in different tenses. If a child knows the principal parts of the verbs, three charts will illustrate the forms; one for "to play", one for "to be", and one for "to have".

For the verb "to play" the forms of all the tenses are listed as they are presented.

	PLAY			
	Present	Past	Future	Present Progress
Affirmative	play plays	played	will play	am playing are playing is playing
Negative	do not play does not play	did not play	will not play	are not playing am not playing is not playing

For the verbs "to be" and "to have" we write on a chart only the present and past tenses. If a child knows the principal parts of verbs, the other tenses follow the forms of "to play".

	IS	
	Present	Past
Affirmative	am are is	was were
Negative	am not are not is not	was not were not

	HAVE	
	Present	Past
Affirmative	have has	had
Negative	do not have does not have have not has not	did not have had not

Subject and Verb Agreement in the Present Form

Deaf children have difficulty with the subject and verb agreement of the present form of verbs. The pronoun he, she and it, as subject, take an "S" ending on the verb. A singular noun, as subject, also takes an "S" ending.

This is explained to our children in the following chart.

S		Ex:
he	S	He likes milk.
she	S	She likes milk.
it	S	It likes milk.
one name	S	A cat likes milk.
		Mary likes milk.

To be and to have

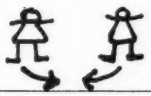
The use of "to be" and "to have" is confusing to a deaf child. The use of these two verbs is taught in sentence patterns. They are only contrasted when we introduce the predicate nominative.

Sentence pattern number two ( ) is one we use with "to be". Ex: I am sick. We never use "to have" with that pattern.

Sentence pattern number four ( ) is another we use with "to be". Ex: The book is on the table.

We never use "to have" with that pattern.

Sentence pattern number three ( ) can be used with both "to be" and "to have". In other words, both "to be" and "to have" can be followed by a noun. We illustrate this by the following chart:

IS	HAVE
Mary is a girl	Mary has a ball.
	

We draw pictures to illustrate this difference and also draw arrows. Arrows coming together mean that the noun following the verb is the same person or thing as the subject and therefore the verb "to be" is used. Arrows breaking apart mean that the subject and object are not the same person or thing and therefore the verb "to have" is used.

QUESTIONS

Question forms are difficult for deaf children. In the primary grades, we do not add the various forms to our verb charts, but rather have a separate chart for questions.

There are three common question forms:

1. When the answer is the subject, the question follows the order of the English sentence.

Ex: Who has a ball?

Whose mother came today?

2. Present and past forms of "to be" invert the subject.

Ex: Are you sick?

Is he well?

Am I fat?

Was he sick yesterday?

Were you here yesterday?

Two present forms of "to have" invert the subject.

Ex: Has he a ball?

Have you a new dress?

3. In all other cases we have an auxilliary, the subject, then a verb form.

Ex: Did he have the flu?

Questions may begin with the verb or may begin with when, where, why, etc.

Ex: When did you have the flu?

We do not underline all words in a question. We underline only the verb. We believe the verb form is the confusing element in asking questions.

We make the following chart to show these verb forms.

PLAY			
Present	Past	Future	Present Progressive, etc.
do — play?	did — play?	will — play?	am — playing?
does — play?		shall — play?	are — playing?
may — play?			is — playing?
can — play?			

have
Present
do — have?
does — have?
have — ?
has — ?

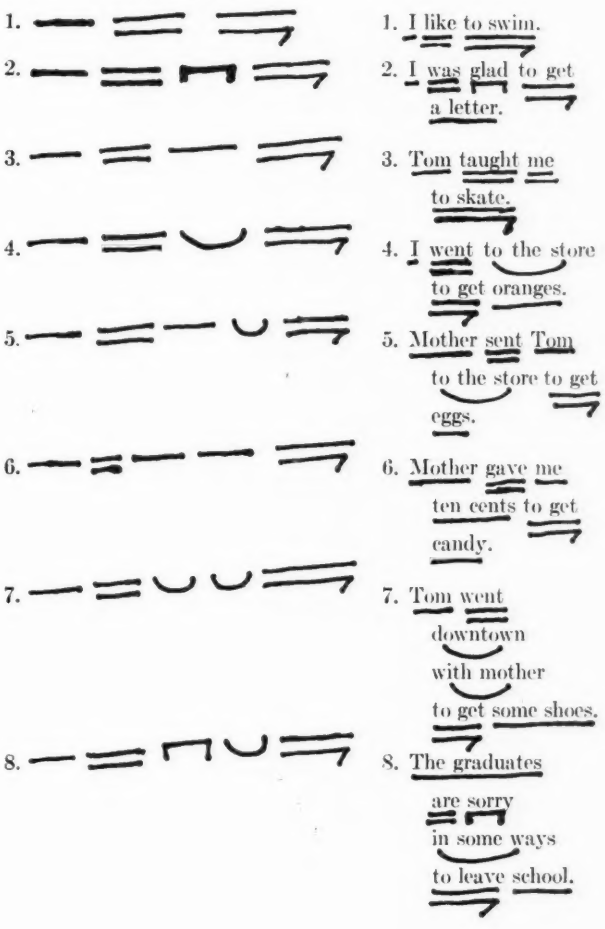
is	
Present	Past
am — ?	was — ?
are — ?	were — ?
is — ?	

Note: All other tenses of "have" and "is" follow the ═══ ▬▬ ═══ form.

Infinitives

Rather than teach the infinitive as direct object, the infinitive of purpose, the infinitive after a predicate adjective etc., we tell the children that the infinitive may be used with each sentence pattern. We accordingly add the infinitive symbol to the original sentence pattern chart. Many of our teachers just clip the infinitive chart to the original sentence pattern adding or removing it as necessary. We explain to the children that the infinitive is verbal, therefore the word order which may follow it is the word order which may follow a verb.

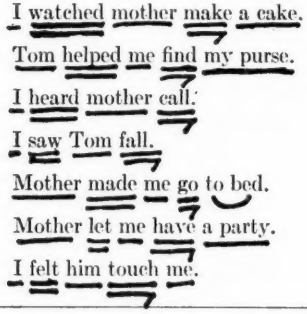
INFINITIVES


1. I like to swim.
2. I was glad to get a letter.
3. Tom taught me to skate.
4. I went to the store to get oranges.
5. Mother sent Tom to the store to get eggs.
6. Mother gave me ten cents to get candy.
7. Tom went downtown with mother to get some shoes.
8. The graduates are sorry in some ways to leave school.

Some infinitives omit the "to". We make a chart to illustrate this.

Verbs omitting "to" of the Infinitive

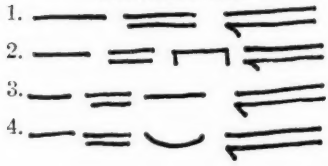
watch	make
help	let
hear	feel
see	

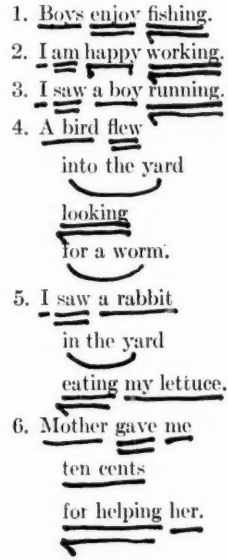

I watched mother make a cake.
Tom helped me find my purse.
I heard mother call.
I saw Tom fall.
Mother made me go to bed.
Mother let me have a party.
I felt him touch me.

Participles and Gerunds

The participle and gerund, like the infinitive, may be used with each of the sentence patterns.

PARTICIPLES





7.

7. I walked
through the field
with Tom looking
for my purse.

8.

8. I am ashamed
of the boys
for doing that.

Comparison of Adjectives and Adverbs

We have the children learn the forms of the positive, comparative and superlative degrees of adjectives and adverbs.

Ex:

tall, taller, tallest
hard, harder, hardest

We teach the comparative form of adjectives as a phrase, showing the children all the possible forms.

Ex:

Henry is taller than John.

Tom is as tall as John.

Mary is more beautiful than Anne.

We teach the comparative form of adverbs also as a phrase.

Ex:

I like pie better than cake.

He ran faster than John.

He ran as fast as John.

We mark the superlative of adjectives and adverbs just as we do the positive form.

Ex:

He is the tallest.

He is the tallest in the class.

He ran the fastest.

He ran the fastest of all.

He is the smartest boy in the class.

Clauses

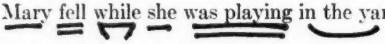
A sentence having a clause is formed with any two of the eight sentence patterns and a connective.

There are three types:

1. The clause follows the main part of the sentence.

   1–8 1–8*

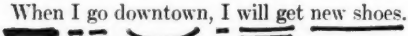
   Mary fell while she was playing in the yard.

2. The clause precedes the main part of the sentence.

   1–8, 1–8

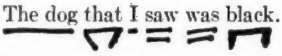
   When I go downtown, I will get new shoes.

3. The clause may be relative

   1 8

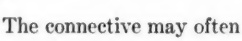
   The dog that I saw was black.

Note:

1. The connective may often be omitted.

   The dog I saw was black.

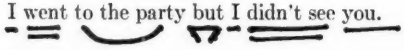
2. Verb agreement in the clause and main part of the sentence must be explained by the teacher.

Compound Sentences

A compound sentence consists of two sentence patterns (any of the eight basic patterns) joined by a connective.

1–8 1–8

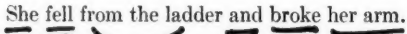
I went to the party but I didn't see you.



Note:

In compound sentences the subject is often omitted in the latter part of the sentence.

She fell from the ladder and broke her arm.



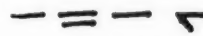
* 1–8 *means any sentence pattern from one through eight.*

Indirect Discourse

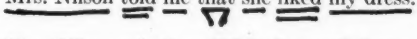
A sentence in indirect discourse may be any of the four following types:

1. 1–8

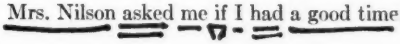
   Mrs. Nilson said that she was going downtown.

2.  1–8

   Mrs. Nilson told me that she liked my dress.

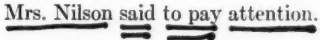
   

   Mrs. Nilson asked me if I had a good time.

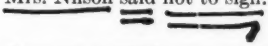
   

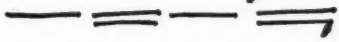
3.

   Mrs. Nilson said to pay attention.

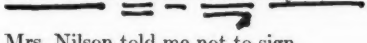
   

   Mrs. Nilson said not to sign.

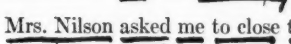
   

4. 

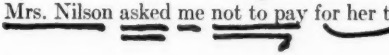
   Mrs. Nilson told me to shut my book.

   Mrs. Nilson told me not to sign.

   Mrs. Nilson asked me to close the window.

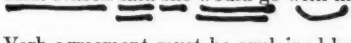
   

   Mrs. Nilson asked me not to pay for her ticket.

Note:

1. The connective may often be omitted.

   Mrs. Nilson said she would go with me.

2. Verb agreement must be explained by the teacher.

Permission for use of Miss Fitzgerald's symbols was granted by The Volta Bureau.

The Harding College Dactylology Club

GARY D. BLAKE*
Harding College, Searcy, Arkansas

The purpose of the Harding College Dactylology Club is to promote understanding and appreciation of the problems of the deaf, to teach the rudiments of the language of signs, and to disseminate information concerning religious work among the deaf.

The theme of the club program might be "Prepare to Serve the Deaf" by learning to understand the deaf, by learning the language of signs, by association with the deaf, by training for interpreting at weddings, funerals, public speeches, church services and in court proceedings. We wish to serve by defending the deaf and by helping other people to come to a better understanding of them. The aim of the club is to help each member to accept and carry through such a program.

A few of our members desire to go into full time work with the deaf, some as ministers, some as teachers, and some as both. The club offers opportunity to view both fields.

The total membership for 1956 was about thirty-five. At the first meeting in 1957 fifty-two students, including old members as well as new, were present.

We have three classes for instruction: beginning, intermediate and advanced. These classes meet separately once each week for a one hour period. The instructors are chosen by the president of the club from the advanced class. The beginners are given an introduction to the work among the deaf, and to the history and practice of the language of signs. The beginners and intermediate students work on language, and the advanced class mainly on interpreting, with discussions of various phases of the work with the deaf. It is planned to have a group meeting once each month for the purpose of business and a program, including the presentation of a film or having a speaker.

The activities of the club include a trip each semester to the Arkansas School for the Deaf so that all new members may become familiar with that phase of work with the deaf. Present plans also provide for one or two social functions each semester. In addition the club will work on a project and hopes to buy some literature on the deaf to be placed in the college library.

Our club emblem shows the sign for "help." It was designed and made by our first sponsor, Mr. Russell Simons, the publicity director for Harding College.

The history of the Harding College Dactylology Club begins in

* Mr. Blake is currently president of the Harding College Dactylology Club.

1949 when a Harding College student, Sam Roach, Jr., who had attended the Arkansas School for the Deaf and later attended Gallaudet College made an announcement in a student assembly that he was interested in preaching to the deaf and would teach the language of signs to anyone willing to learn and to help in this work. That year he taught two or three college men who had become fluent in the language of signs and who had helped him with his work among the deaf in Little Rock.

The following year the men whom Mr. Roach had taught made a similar announcement and taught the language of signs to a few more college students, including some college women. Every year saw regular meetings for the study and practice of the language of signs. The group was known as "the sign language class." Last year this group drew up a constitution, selected a sponsor, made plans for future broadening of the purposes and activities of the club, and became an official campus organization. The club's constitution had, of course, been approved by the president of the college. Much credit must be given to Russell Simmons for his help in organizing the club.

Since the sign language group, now the Dactylology Club, came into existence several people have gone into the service for the deaf as ministers and church workers. Six or eight marriages have been attributed to our organization, a fact which gives new hope to some club members! Several of the present members work with the deaf in Little Rock on Sundays. Each Sunday six members of the Dactylology Club, under the direction of the elders of the Central Church of Christ, 13th and Wolfe Streets, Little Rock, teach Bible Classes there, and hold a chapel program at the school for the Negro deaf. They also conduct services for the deaf at the Central Church, and once a month go to the Arkansas School for the Deaf to preach the chapel lesson. Members of the club are publishing an attractive church bulletin especially for the deaf.

Ten members of the club helped in Arkansas' first camp for the deaf which was held last August at Camp Wyldewood, three miles north of Searcy.

We hope that many of our club members will see the great need in the field of service to the deaf, and that more will be interested into going into this work.

Changes in Administration

California

Gilbert L. Delgado, a member of the staff of the California School for the Deaf at Riverside, California, for the past four years, has been appointed Supervising Teacher of the Advanced Department at the California School for the Deaf, Berkeley, California. Mr. Delgado is a graduate of the Teacher Training Department of Gallaudet College, Washington, D. C.

Florida

James Williamson, a member of the staff of the Florida School for the Deaf, has been appointed Supervising Teacher of the Intermediate and Advanced Departments in the Florida School. Mr. Williamson was trained at the Lexington School and Columbia University and was on the staff of the Newark Day School for a number of years.

Minnesota

Harland J. Lewis, formerly Principal of the North Dakota School for the Deaf, has been appointed Supervising Teacher of the Primary Department of the Minnesota School for the Deaf, Faribault, Minn. Mr. Lewis was trained to teach the deaf at the Western Pennsylvania School for the Deaf, Pittsburgh, Penn.

North Dakota

Mrs. Ernestine B. Smith has been appointed Principal of the North Dakota School in Devils Lake, North Dakota. Mrs. Smith has had many years experience in the teaching of the deaf and has specialized in the field of the teaching of slow deaf children. Mrs. Smith has taught in a number of schools for the deaf in the United States.

Tennessee

Archer P. Bardes, formerly Principal of the Central New York School for the Deaf, Rome, New York, has been appointed Principal of the Tennessee School for the Deaf, Knoxville, Tenn. Mr. Bardes was formerly a Principal at the Alabama School for the Deaf in Talladega, Alabama.

Vermont

J. Jay Farman was appointed Superintendent of the Austine School in Brattleboro, Vermont, on August 9, 1958. Mr. Farman was graduated from Miami University, Oxford, Ohio, in 1951, where he majored in Speech and Social Sciences. He was trained to teach the deaf at the University of Texas and the Texas School for the Deaf, receiving a M.Ed. in Special Education in 1953. Mr. Farman has taught in the advanced departments in the Oregon

School for the Deaf and in the Michigan School for the Deaf. He has also acted as Director of the Hearing Clinic and as Educational Coordinator of the Bay Cliff Camp for Handicapped Children in Big Bay, Michigan, for the past few summers. During the summers of 1957 and 1958 Mr. Farman has also been a member of the faculty in the Department of Special Education in Northern Michigan College.

Honors and Awards

The Shattuck Centennial Committee of the Shattuck Military School in Faribault, Minnesota, presented a number of awards on Friday, June 6, 1958, on the occasion of their centennial. Three awards were made for Service to Secondary Education in the field of the education of the deaf, Dr. Elwood A. Stevenson, Supt., California School for the Deaf, Berkeley, Calif., Dr. Clarence D. O'Connor, Supt., Lexington School for the Deaf, New York, N. Y., and Howard M. Quigley, Supt., Minnesota School for the Deaf, Faribault, Minn.

The honorary degree of Master of Arts was conferred upon Helen T. Patten, Supervisor of Preschool Auditory Training in the Department of Public Health in the Division of Maternal and Child Health, by Emerson College of Boston, Massachusetts, on November 30, 1956. The citation was as follows:

HELEN TRAVIS PATTEN

Humanitarian and Pioneer in teaching the deaf and hard of hearing.

For nearly forty years as a teacher of the hearing handicapped, you have brought new hope and constructive assistance to countless children to whom nature has denied acuteness of auditory perception. You have organized speech and hearing clinics in Boston and Haiti and given unstintingly of your wisdom and experience to fellow-laborers in your profession. When our Samuel D. Robbins Speech and Hearing Clinic was opened in 1953, you were one of the first to rally to our cause, and you have continued to give generously and graciously of your time and interest.

In recognition of your long years of service to a profession in which Emerson has also pioneered, the Faculty and Trustees of Emerson College have recommended you for the honorary degree of MASTER OF ARTS.

The honorary degree of Doctor of Humane Letters was conferred on William Jasper McClure at the regular Commencement exercises of Westminster College at Fulton, Mo., on June 9, 1958. The citation was made by Mr. Fred B. Montgomery.

Mr. President:

I am honored to present for the degree of doctor of humane letters another of Westminster's alumni who has distinguished himself in the field of education for the deaf. This man was practically born into his future career as not only were both of his grandfathers and grandmothers teachers in schools for the deaf, but his father and mother were also educators of the deaf, the former being superintendent of the School for the Deaf here in Fulton for several years.

After graduating from Westminster College "cum laude," in the Class of 1936, he completed his professional training at the Normal Department of Gallaudet College, Washington, D. C., where he was retained after graduation as a teacher. Shortly thereafter he went to the Kendall School for the Deaf in the same city for a short term which was terminated when he was called back to Gallaudet College to become Director of the Graduate Department of Education. From there his star continued to rise as he became in turn Superintendent of the State School for the Deaf of Tennessee, and again later to the top position in the Indiana State School for the Deaf where he has come to be regarded as one of the outstanding young men in the field.

He is a Director of the International Council for Exceptional Children, Vice President of the Conference of Executives of the American Schools for the Deaf, Vice President of the Convention of American Instructors of the Deaf, and Editor of the Convention *Proceedings*. which is a United States government publication.

Chosen frequently to represent the profession on many occasions, he has recently been selected by the Canadian Association of the Deaf to speak for them before an interested committee of the Canadian Parliament, and this summer he will go to England to represent the United States at another conference on the education of the deaf.

As one of the former presidents of the Conference of Executives of American Schools for the Deaf has said, "Mr. McClure has a warmth of personality that makes him noteworthy in any group. His high ideals of service to the handicapped, his scholarly achievements and his sterling integrity are a source of great inspiration to all of us who are associated with him."

And, because I have known this young man for most of his life and have high regard for him and for other members of his family I have additional pleasure in presenting to you William Jasper McClure for this degree at your hand.

In connection with the centennial celebration of the The Kendall School, Gallaudet College conferred honorary degrees at a special convocation in November, 1957, on David Peikoff and Eric Stanley Greenaway. At the regular Commencement exercises in June, 1958, Gallaudet College conferred honorary degrees on Boyce Robert Williams, Peter Joseph Salmon, and Helmer R. Myklebust. The citations were as follows:

David Peikoff

David Peikoff is a citizen of Canada and a graduate of Gallaudet College who has served deaf people in his country and of his college with remarkable zeal. As a Director of the Ontario Association of the Deaf and as Chairman of the Canadian Deaf Scholarship Board he has continually sought

the welfare of deaf people in Canada; and for those who were ready for a college education but financially unable to secure it, he has been largely responsible for the scholarships that have made it possible for them to attend his alma mater. As President of the Gallaudet College Alumni Association he has shown a similar energy, enthusiasm, and loyalty—for which distinguished qualities we honor him today. DOCTOR OF LAWS.

ERIC STANLEY GREENAWAY

Eric Stanley Greenaway has spent his entire professional career in the education of deaf children. To his experience he has brought a mind gifted with insight, with objectivity, and with the curiosity to search for new and better ways to perform old tasks. He is now recognized by his country as a leader in his profession; the school that he administers is acknowledged one of the finest in Great Britain; his counsel has been heard and respected throughout the British Commonwealth of Nations. We in this country applaud his good judgment that would fit the method to the child and not the child to the method, and that finds all roads to enlightenment to be good roads. DOCTOR OF LETTERS.

BOYCE ROBERT WILLIAMS

Boyce Robert Williams is a graduate of Gallaudet College and of Teachers College, Columbia University, who has made his career the improvement of the welfare of deaf persons. He served several years as Principal of the Vocational Department of the Indiana School for the Deaf. For the past thirteen years he has served in the Office of Vocational Rehabilitation of the United States Department of Health, Education, and Welfare, as Consultant on the Deaf and the Hard of Hearing; and during this time, by promoting research and training programs, has been responsible for a new awareness among employers and among the general public of hitherto unrecognized abilities of persons handicapped by deafness. He has successfully fought for new and constantly expanding opportunities for deaf persons so that they may continue to hold the place they now maintain in this rapidly growing and changing nation as the equals of its other citizens. He has served as President of the Gallaudet College Alumni Association. He is a fine example of the effectiveness of a capable deaf citizen in government service. He is the first member of the Gallaudet College Alumni Association to become a member of the Board of Directors, where he has served with distinction. DOCTOR OF LAWS.

PETER JOSEPH SALMON

Peter Joseph Salmon is a graduate of the Perkins School for the Blind and a student there, after his graduation, of the education of the deaf-blind. In 1917 he joined the Industrial

Home for the Blind, which he has served for the past forty-one years, first as business manager, then as member of the Board of Trustees, and for the past thirteen years as executive director. Under his leadership the Industrial Home for the Blind has become one of the foremost institutions of its kind in the world, serving four thousand blind and deaf-blind persons on Long Island, offering the only major facility in the country for deaf-blind adults, pioneering in medical, social, and vocational programs for the people it serves, and undertaking research into optical devices and into a universal method of communication for deaf-blind persons. He has given of his time and experience to many national and international organizations active in the welfare of the blind. Gallaudet College is proud to join them in recognizing the high quality of his services to handicapped persons. DOCTOR OF LAWS.

HELMER R. MYKLEBUST

Helmer R. Myklebust completed his undergraduate studies at Augustana College and holds graduate degrees from Gallaudet College, Temple University, and Rutgers University. He has taught deaf children in the Tennessee and New Jersey Schools for the Deaf. This fine experience in the classroom prompted him to do research in the many aspects of deafness. For the past ten years he has served Northwestern University, where he now holds appointments in three different schools: in the College of Liberal Arts as Professor of Psychology; in the School of Speech as Professor of Language Pathology; and in the School of Medicine as Professor of Neurology and Psychiatry. Also at Northwestern University he founded and now directs the Institute for Language Disorders in Children. His researches into the psychology of the deaf have made him the acknowledged leader in this field. He has been the inspiration for many men and women now successfully carrying on similar programs in educational centers in the United States. We regard him as one of the most productive men now active in the education of the deaf. DOCTOR OF LETTERS.

MISCELLANEOUS

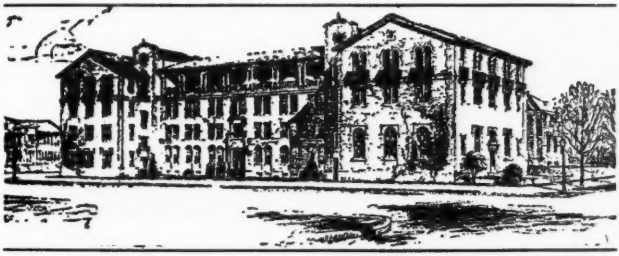
Study of Hearing

The American Academy of Ophthalmology and Otolaryngology, through its Subcommittee on Hearing in Children of the Committee on Conservation of Hearing, has been conducting a long-term nation-wide study of problems relating to the conservation of hearing in children. The specific aims are to develop the most efficient case-finding methods and to use these methods in estimating the magnitude of the problem in the country; to study state laws and review current practices and facilities for rehabilitation of hearing impaired children; to help develop methods for medical and surgical rehabilitation standards; and ultimately to use the Subcommittee findings in assisting professional workers to improve and enhance programs in hearing loss.

In the second year of operations, a full-time Executive Director has been engaged, and offices established at the Graduate School of Public Health, University of Pittsburgh. An initial study is being conducted in Pittsburgh to identify early medical signs and symptoms which may indicate danger of hearing impairment, to measure the psychological, social and other effects of such impairment and to develop efficient and economical methods for the testing of hearing in children. The Pittsburgh study is a cooperative effort among the following: The Subcommittee on Hearing in Children, the Graduate School of Public Health and the School of Medicine of the University of Pittsburgh, the Pittsburgh Board of Public Education, and the Allegheny County Department of Health.

The members of the Subcommittee on Hearing in Children are: Dr. John E. Bordley, Baltimore; Dr. Victor Goodhill, Los Angeles; Dr. Hollie E. McHugh, Montreal; Dr. S. Richard Silverman, St. Louis; and Dr. Raymond E. Jordan, (Chairman), Pittsburgh. An advisory committee of consultants from the University of Pittsburgh includes Dr. Samuel M. Wishik, Dr. Leo G. Doerfler, and Dr. Isidore Altman. Grants from the United States Children's Bureau through the Pennsylvania Department of Health and from the National Institutes of Health are providing financial support. Dr. Eldon L. Eagles of the Graduate School of Public Health of the University of Pittsburgh is the Executive Director.

THE Language Outline prepared by the members of the faculty at Central Institute for the Deaf, St. Louis, Mo., has been reprinted for the fourth time since it was originally published in the AMERICAN ANNALS OF THE DEAF in September, 1950. Copies may be obtained for fifty cents. Orders may be sent to the AMERICAN ANNALS OF THE DEAF, Gallaudet College, Washington 2, D. C.



Central Institute for the Deaf

FOUNDED BY DR. MAX A. GOLDSTEIN

ORAL SCHOOL for deaf children — Day and Residential — Preschool to High School.

SPEECH CORRECTION—Classes for children with aphasia and other defects of speech.

Modern dormitories and equipment

INSTRUCTION and CLINICS for hearing assessment, deafness prevention, auditory training, lipreading, speech defects, including aphasia, cleft palate, laryngectomy, stuttering, articulatory defects, voice disorders—children and adults

TEACHERS COLLEGE—affiliated with Washington University—leads to B.S and M.A. degrees and Ph.D. research degree—outstanding opportunities for practice.

MODERN LABORATORIES FOR RESEARCH IN SPEECH AND HEARING

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HELEN S. LANE, Ph.D., Principal

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"A **Zenith Hearing Aid** brought the gift of sound into our daughter's life!"

With total loss in one ear and only a 10% response in the other, Pamela, 3-year-old daughter of Mr. and Mrs. Guy Brock of Walcott, Iowa, seemed doomed to live in the silent world of almost total deafness.

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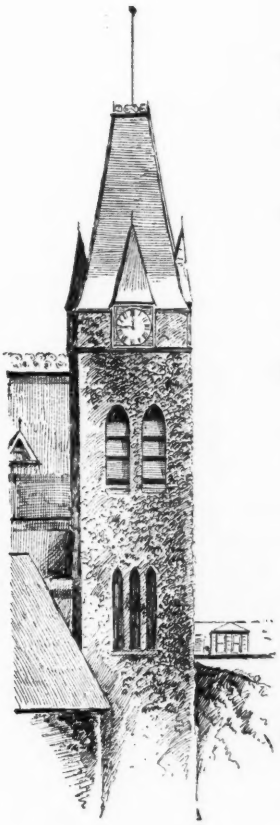

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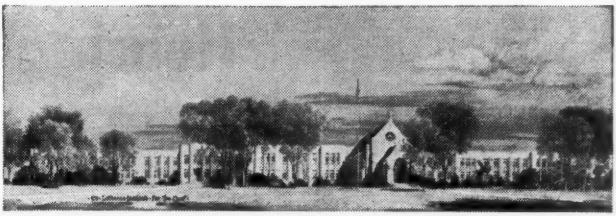

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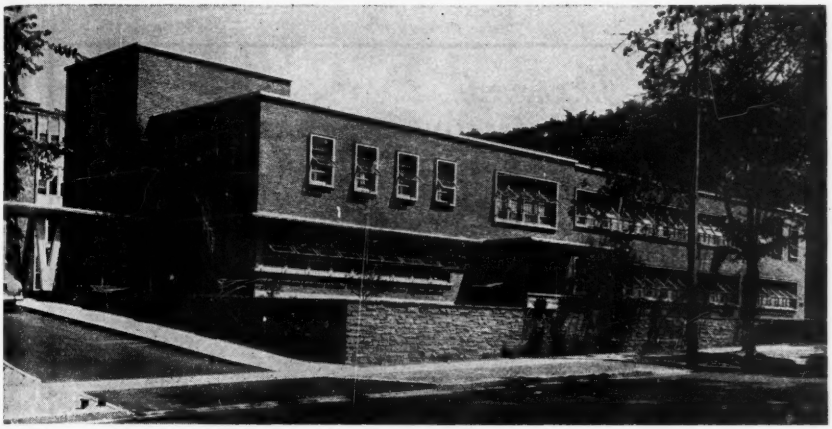

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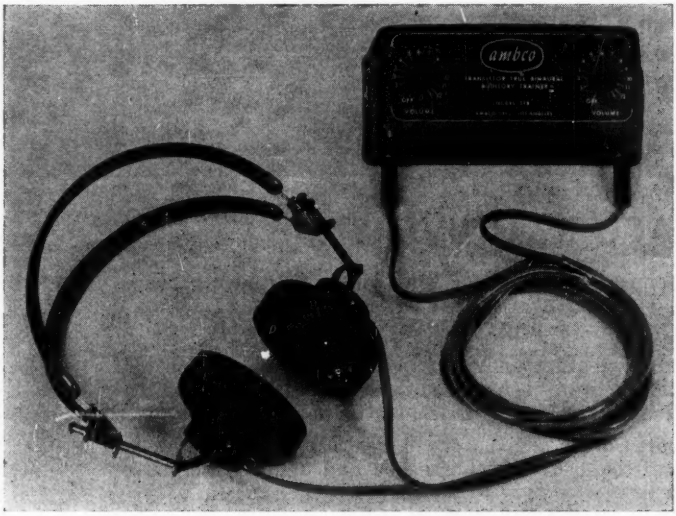

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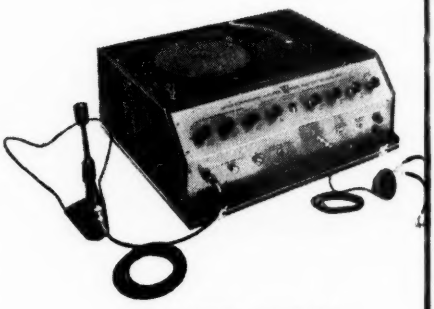

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